

# Youth, Revolt, Recognition

The Young Generation during and after the “Arab Spring”

Edited by Isabel Schäfer



**Youth Unemployment in the Southern Mediterranean – Demographic Pressure,  
Human Development and Policies**

by **Wai Mun Hong**

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## Youth Unemployment in the Southern Mediterranean: Demographic Pressure, Human Development and Policies

*Wai Mun Hong*

### Introduction

(Un)employment can be considered a common measure of socio-economic well-being; it is a term that describes economically active persons who find themselves jobless. For many unemployed citizens, hopelessness sets in as the period of job search drags on, undoubtedly causing serious psychological impact and provoking dissatisfaction with those in power - a dissatisfaction that often manifests itself through protests. Unsurprisingly, unemployment became a heated topic during the social uprisings that erupted in the Southern Mediterranean region.<sup>1</sup>

Unemployment rates in the Southern Mediterranean during the period preceding the 2010-2011 social uprisings were in fact improving, but in many countries, rates still remained in the double digits. Job creation had been growing faster than the labour force, but the impact was hardly felt. Youth bore most of the brunt, becoming more vulnerable to unemployment with respect to other working age segments of the population. Job searching was indeed increasingly daunting as an average of more than half of the youth in the Southern Mediterranean felt that it was not a good time to find a job.<sup>2</sup>

Many observers in the region highlight the importance of demographics since the Southern Mediterranean youthful population continued to put pressure on the job market capacity with more new entrants for every retired person from the labour force. This was changing in the last decade as the year-on-year growth of the labour force, including the youth workforce, began to decrease in some of the Southern Mediterranean economies. But demographic pressure was not the only aspect influencing the Southern Mediterranean's chronic unemployment problem; it was the interaction between demographic factors and out-dated equity-oriented socio-economic policies that in fact produced a long-term impact on the (youth) (un)employment situation. Southern Mediterranean economies focused on public investments in education as part of their post-colonial policies, with the objective of modernising the state by consolidating power and strengthening capacity building and legitimacy. It was not until the 1970s that the impact of this on (un)employment started to become visible. Public sector contraction only served to exacerbate the situation. Even today, the people of the Southern Mediterranean continue to feel the side-effects of these policies as highly educated persons find themselves facing increasing difficulties when entering the job market.

With this context in mind, this paper explores the intricacies of the (un)employment landscape in the Southern Mediterranean region. Statistical analysis will be used to observe the impact of demographics and human development dynamics on unemployment, illustrating how post-colonial policies still play a role in this issue. The analysis includes an intra-regional comparison element due to the diversity of the region. The objective is to identify nuanced differences between the economies in the Southern Mediterranean region with regard to (un)employment in order to explain

<sup>1</sup> The Southern Mediterranean economies refer to Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria and Tunisia.

<sup>2</sup> Silatech and Gallup, Inc., The Silatech Index, Series: Mindset Score, Year: 2010. Southern Mediterranean economies included in the study are Algeria, Egypt, Jordan, Lebanon, Libya, Morocco, Palestine, Syria and Tunisia.

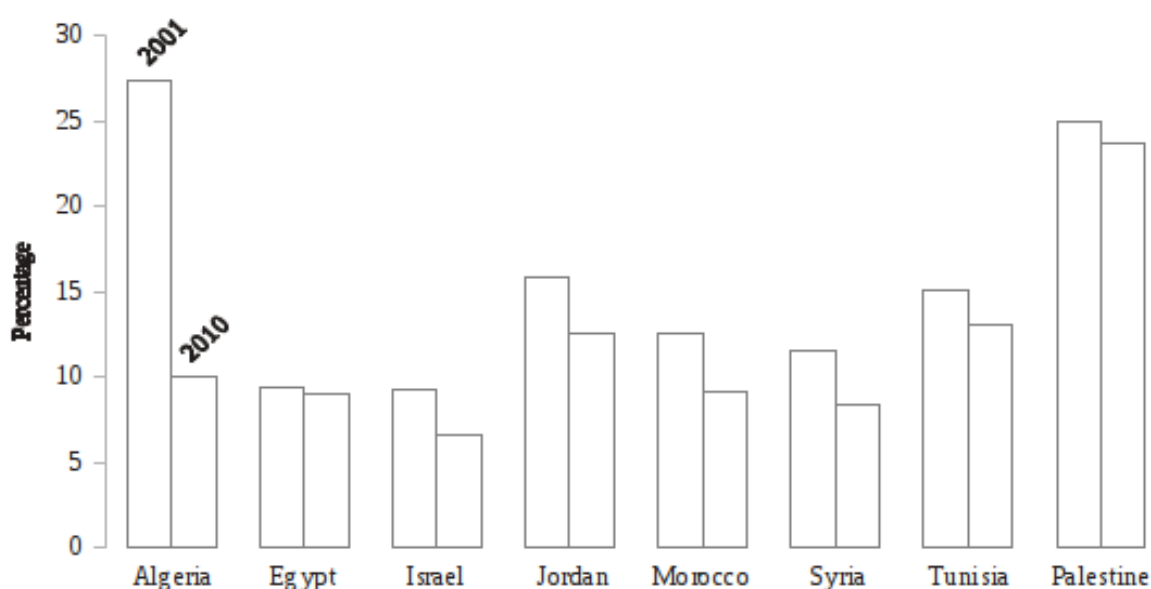
why some countries experienced social uprisings and socio-political change while others did not. Furthermore, this paper also analysis the role that youth played in the social unrests across the region, suggesting that young demographics and youth unemployment have been the main factors contributing to the social chaos. After all, the youth segment constitutes an important part of the social fabric, and is often considered “the future of the country”.

In the first section, the paper presents an overview of the unemployment situation in the Southern Mediterranean with a statistical analysis of the labour and job markets. The second section focuses on youth unemployment, and the third on their participation in the labour and job markets. The fourth section assesses the impact and the intricacy of demographic trends on (youth) unemployment in the Southern Mediterranean based on data from various international organisations. The fifth section assesses the human development aspect of the (youth) labour force, and explains how this affected (un)employment. Recognising the shortcomings of statistical analysis as a method for capturing the intricacies of the unemployment landscape, the sixth section discusses some explanations that go beyond recent argumentative narratives.

### Unemployment in the Southern Mediterranean

By 2010, unemployment rates in the Southern Mediterranean had reached one of its lowest points in the decade, with a combined rate of 10 percent<sup>3</sup>. At the state level, rates varied between 24 percent in Palestine and 7 percent in Israel. Regional unemployment also decreased by 5 percent between 2001 and 2010<sup>4</sup>, although at state level, progress was disparate. Algeria's unemployment situation saw the greatest improvement, with its total unemployment rate falling by 17 percentage points, while Egypt experienced the slowest improvement, with total unemployment rates falling by only 0.40 percentage point. (See graph 1.1)

**Graph 1.1. Total unemployment rate, 2001 and 2010, percentage**



<sup>3</sup> Author's own calculations, The World Bank's Development Indicators, Series: Labor force, total; Unemployment, total (% of total labor force), Year: 2010. Data for Lebanon and Libya not available.

<sup>4</sup> Ibid.

Source: The World Bank, World Development Indicators & Global Development Finance, Series: Unemployment, total (% of total labor force), Year: 2001 and 2010. Note: Data for Lebanon and Libya not available.

However, despite their improving employment situation, Southern Mediterranean economies did not succeed in overcoming their chronic unemployment rates. In Algeria, despite a decrease of near 20 percentage points, the unemployment rate remained at double-digits. In Tunisia, unemployment rates not only stayed above 10 percent - the region's second highest -, but also had one of the slowest improvements. Similar developments could be found in Jordan, Syria and Egypt.

**Table 1.1. Labour force and job market trends**

	Between 2001 and 2010			
	Total n°. of new jobs created	Growth in n°. of new jobs created, %	N°. of new labour force entrants	Labour force growth, %
Algeria	3,681,274	53.78	2,280,441	24.22
Egypt	5,527,938	30.34	5,986,273	29.77
Israel	686,206	30.06	661,949	26.30
Jordan	363,704	34.71	368,733	29.63
Lebanon*	121,626	10.76	148,494	12.10
Morocco	1,567,295	18.09	1,353,745	13.67
Syria	977,659	22.30	894,057	18.03
Tunisia	567,826	20.57	574,193	17.66
Palestine	224,432	48.49	284,451	46.15
Southern Mediterranean**	13,596,335	30.44	12,403,840	23.84

Source: Author's own calculations and The World Bank's Development Indicators, Series: Labor force, total; Unemployment, total (% of total labor force), Year: 2001 and 2010.<sup>5</sup> Notes: \* Between 2004 and 2007. \*\* Excludes Lebanon and Libya.

What is intriguing about this development is that the region's average of near 5 percent economic growth<sup>6</sup> per annum (p.a.) in the past decade had little trickle-down affect on job creation. In 2010, the Southern Mediterranean labour force was approximately 64 million strong.<sup>7</sup> It grew by 24 percent from 2001, an equivalent of 12.4 million new labour force entrants (see Table 1.1.). The region had generally succeeded in stabilising its unemployment rate by stimulating a job creation growth of 30 percent, just enough to absorb the number of new labour force entrants. Although the number of jobs created was proportionally growing at a rate faster than that of the labour force, it did not improve the unemployment situation significantly.

<sup>5</sup> (a) Due to incomplete and disparate data for calculation purposes, the difference in the number of employed persons between 2001 and 2010 as a proxy of the number of new jobs created. The logic being that all employed persons must have a job, and therefore difference in the number of employed persons between two-time period is the number of "new" jobs created, positive or negative.  
 (b) Number of new labor force entrants is the difference in the total labor force between 2001 and 2010.

<sup>6</sup> Economic growth here refers to Gross Domestic Product (GDP) growth. Growth rate is based on author's own calculations, The World Bank's World Development Indicators, Series: GDP growth (annual %), Year: 2001 to 2010. Data for Palestine not available.

<sup>7</sup> Author's own calculations and The World Bank's World Development Indicators, Series: Labor force, total; Unemployment, total (% of total labor force), Year: 2001 and 2010. Due to incomparability in the latter comparative analysis, this figure excludes Lebanon and Libya. With Lebanon and Libya, the size of the labour force was 68 million.

At the state level, Algeria outperformed other economies in the Southern Mediterranean region. Its growth in terms of new jobs created exceeded the growth of the labour force by 30 percent, explaining the steep drop in unemployment rates. Other Southern Mediterranean economies maintained a gap between 1 and 5 percent, but also experienced faster job creation over labour force growth. These developments produced mixed effects on unemployment situations across the Southern Mediterranean. Algeria benefited the most by far, with approximately 1.4 million of jobs created in excess of the number required to cover the number of new labour force entrants as well as a substantial portion of the existing pool of unemployed.

Morocco, Syria and Israel also experienced similar developments, albeit to a lesser extent. In the rest of the region, despite similar trends in the growth differential between job creation and the labour force, different unemployment dynamics were produced. In Egypt, the number of new jobs created was 458,334 short of the number of new labour force entrants. This number was 60,019 in Palestine, 6,366 in Tunisia, and 5,029 in Jordan.

On the regional level, the number of new jobs created outstripped the number of new labour force entrants by approximately 1.2 million. However, the spill-over of new jobs created in excess only marginally decreased overall unemployment rate by 5 percent; unemployment rates thus remained at a double-digit 10 percent. Indeed, Southern Mediterranean economies were successful in stabilising the unemployment rate in the past decade, but the situation remained unchanged for so long that the economies were not only at risk of decreasing productivity and efficiency, but also prolonging social discontentment on the ground. Although unemployment rates were somewhat stabilised, the real number of unemployed people was still growing. It can be concluded that the stabilisation of unemployment rates is no longer a sustainable strategy in the Southern Mediterranean. As the 2010-2011 social uprisings and the continued social discontent in the region demonstrate, greater socio-economic progress is needed in order to prevent further social chaos. It is not enough to create new jobs as a way to absorb the bulge of new labour force entrants. The number of new jobs created must grow at a rate far higher than the stabilising rate in order to bring it significantly down, and closer to the potential natural unemployment rate of the economy in order to ensure at least the minimum level of productivity and efficiency.

### **Youth Unemployment in the Southern Mediterranean**

The unemployment landscape in Southern Mediterranean was bleak for the population at large, but the situation was (and still is) even more daunting for the young generation<sup>8</sup>. On the eve of the social uprisings, youth unemployment rates were above 20 percent, which was double the total unemployment rate; these rates were, and still are, among the world's highest. Some of the highest youth unemployment rates in the region were found in Egypt and Tunisia, where the social uprisings ignited. In fact, youth unemployment rates in the region had fallen to around 8 percent since 2001, with some economies improving faster than the others.

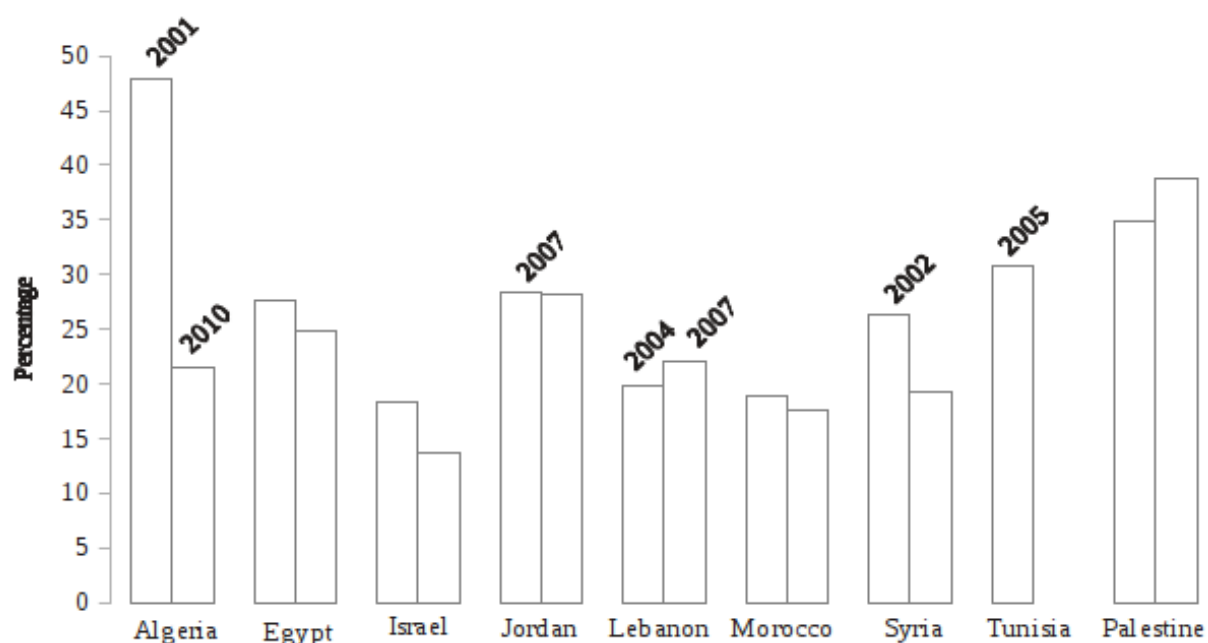
Showing the greatest improvement among the Southern Mediterranean economies, Algeria's youth unemployment rate decreased from nearly 50 percent in 2001, the region's highest rate at the time,

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<sup>8</sup> According to The World Bank, the youth population comprises any person aged between 15 and 24. Youth labour force refers to the population aged between 15 and 24 who are economically active.

to 21.5 percent a decade later. Meanwhile, the youth unemployment rate in Egypt, which in 2001 stood at 27.7%, fell only by 2.9 percentage points in the same decade, remaining the third highest in 2010. The situation in Tunisia was also one of the most serious in the region by the eve of its social uprising in 2010. (See graph 2.1)

**Graph 2.1. Youth unemployment**



Source: The World Bank, World Development Indicators & Global Development Finance, Series: Unemployment, youth total (% of total labor force ages 15-24), Year: 2001 and 2010 unless specified otherwise. Note: Data for Libya and Tunisia of 2010 not available.

The high youth unemployment rates in the Southern Mediterranean region meant that almost 50 percent of the total number of unemployed persons were youth (2.3 million in 2010). This was most visible in Syria and Egypt, where social unrests are still on-going, since more than 50 percent of the total unemployed population in these countries were young people. Tunisia was not far behind with 46 percent. Jordan also had similarly high proportions of unemployed youth, but managed to narrowly escape a similar predicament. Better performing economies had a smaller proportion of young people within their total unemployment rates (see Table 2.2).

A common feature of the Southern Mediterranean economies is the decreasing share of youth in total unemployment. Syria experienced a decline of 14.16 percentage points, the biggest decline in the region. Algeria was a close second, with a decrease of 10 percentage points. In Jordan, however, young people remained some of the most vulnerable to unemployment in the region, as the share in total unemployment remained extremely high - about 50 percent - and decreased by only 1 percent. Palestine was the exception, experiencing an increase in the share of youth in total unemployment. The falling share of youth in total unemployment in the Southern Mediterranean economies also corresponded to a 24.64% contraction of the pool of unemployed youths. Algeria experienced the largest contraction: the number of unemployed youth decreased by 64.02 percent. Still, this was not necessarily true for other Southern Mediterranean economies. Despite a fall in the proportion of



youth in the total unemployment, Egypt's pool of unemployed youths grew by 11 percent, Lebanon's by 8 percent and Jordan's by 2 percent.

In other words, from a regional perspective, unemployment in Southern Mediterranean had indeed made substantial progress in all elements that make up the youth (un)employment composition. However, this outcome was underpinned by diverse and unbalanced performances in each economy in the MENA region. Although an improving (youth) (un)employment rate is an over-arching indicator of better employment prospects, it does not reveal hidden flaws in the intricate composition of elements that result in (un)employment. This is evident in the case of Egypt, where the youth unemployment rate and the proportion of youth in total unemployment decreased, but the pool of unemployed youth continued to expand. This finding is by no means indicative, but it offers a potential explanation to the social chaos and the growing discontent among the unemployed, regardless of age.

However, the same assumption does not explain the case of Syria, for instance. Syria may not have been the best performer in the region, but it had a better general scorecard and less contradictions than Egypt. In Tunisia, comparable data of the two-time periods do not exist, but the central indication factor for the social unrest in 2010-2011 was the high (youth) unemployment rate.

**Table 2.2. Youth unemployment trends and dynamics**

	% of youth within total unemployment rate		Between 2001 and 2010	
	2001	2010	Expansion in n°. of unemployed youths	Growth in n°. of unemployed youths, %
Algeria	47.76	37.76	-786,004	-64.02
Egypt	61.40	55.01	131,387	11.32
Israel	28.11	24.08	-15,287	-23.24
Jordan	50.41 ('07)	49.37	1,721 ('07-10)	1.76 ('07-10)
Lebanon	47.92 ('04)	40.58 ('07)	3,783 (04-07)	8.14 ('04-07)
Morocco	38.24	37.18	-92,562	-19.55
Syria	69.94 ('02)	55.79	-137,203 ('02-10)	-33.34 ('02-10)
Tunisia	46.28 ('05)	-	-	-
Palestine	38.89	40.56	26,910	45.09
Southern Mediterranean*	49.08	45.34	-735,556	-24.62

Source: Author's own calculations, The World Bank's World Development Indicators, Series: Labor force, total; Unemployment, total (% of total labor force), Labor force participation rate, total (% of total population ages 15-24), Unemployment, youth total (% of total labor force ages 15-24), Year: 2001 and 2010 unless specified, and U.S. Census Bureau International Data, Series: Population by youth age group, Year: 2001 and 2010. Note: \* includes Algeria, Egypt, Israel, Morocco and Palestine. (a) Year of the data in brackets when data of year 2001 and/or 2010 are not available. (b) Data for Libya not available.

### Youth labour force and job market trends

As the youth become increasingly educated and well-informed, they start to represent an important part of the Southern Mediterranean socio-economic fabric and contribute to time-invariant socio-economic development. Yet, this young generation has been the one most affected by unemployment. Although the youth segment accounted for only one-fifth of total labour force in the Southern Mediterranean countries<sup>9</sup> (approximately 13 million in size), they constituted a disproportionate 50 percent of the total number of unemployed persons. The core of the unemployment problem troubling many of the Southern Mediterranean economies today could be the result of these paradoxical intricacies at work.

Although many observers argue that demographic pressure has caused the unequal representation of youth in total unemployment in the Southern Mediterranean economies, the statistical analysis illustrated in Table 3.1. shows that the effect could be marginal. Between 2001 and 2010, youth labour force in the Southern Mediterranean region has only grown by 1 percent, or 140,805 persons. At the state level, instead of expansion, half of the Southern Mediterranean economies experienced a contraction in youth labour force, including Syria and Tunisia where social uprisings erupted. The most serious cases were found in Algeria where youth labour force suffered a -20 percent growth. Morocco's youth labour force experienced a -14 percent growth, Tunisia's -11 percent, Syria's -7 percent, and Lebanon's -2 percent (see Table 3.1.).

**Table 3.1. Labour force trends and dynamics**

	Growth between 2001 and 2010		
	Labour force	Youth labour force	Labour force aged 25-64
Algeria	24.22	-20.01	40.81
Egypt	29.77	24.34	31.20
Israel	26.30	3.10	30.15
Jordan	29.63	20.27	32.54
Lebanon	43.53	-2.00	56.39
Libya	25.83	8.85	30.93
Morocco	13.67	-13.61	22.90
Syria	18.03	-6.57	28.99
Tunisia	17.66	-11.03	25.71
Palestine	46.15	30.13	52.33
Southern Mediterranean	24.29	1.08	31.48

Source: Author's own calculations, The World Bank World Development Indicators & Global Development Finance, Series: Population, total, Labor force, total, Labor force participation rate for ages 15-24, total (%), Year: 2001 and 2010, U.S. Census Bureau International Data, Series: Population by youth age group, Year: 2001 and 2010.

<sup>9</sup> See table 3.2.

Most of the Southern Mediterranean economies that experienced negative growth in their youth labour force also saw negative growth in the number of unemployed youths (except Lebanon).<sup>10</sup> Egypt's high growth in youth labour force, which was also one of the highest in the region, could represent a causal factor in the increase of unemployed youth in the country (likewise for Jordan, although to a lesser extent).

Contractions in youth labour force in the Southern Mediterranean economies could potentially be the result of the decreasing youth labour force participation rate. Syria saw the greatest decrease in youth labour force participation rates with a decline of 11.70 percentage. Egypt and Libya were the only economies to experience an increase in youth labour force participation rates, which increased by 5.30 and 1.60 percentage points respectively. In Egypt, however, this rising youth labour force participation rate only further accentuated the high proportion of unemployed youth and the (youth) unemployment rate.

Although it remains unclear to what extent youth labour force growth in the Southern Mediterranean area affected (youth) unemployment on a regional level, the increase in youth labour force certainly provides explanations to some of the cases on a country-level, for example, in Egypt or Jordan, where growth in the youth labour force was extremely high. If marginal growth in youth labour force cannot provide explanation to the high (youth) unemployment rate in other cases in the Southern Mediterranean, (dis)equilibriums in the labour force may hold some justifications.

**Table 3.2. Youth labour force and employment trends**

	% of youth in the labour force		% of youth in total employed persons	
	2001	2010	2001	2010
Algeria	27.28	17.56	19.59	15.32
Egypt	20.83	19.96	16.63	16.50
Israel	14.21	11.60	12.78	10.72
Jordan	23.33 ('07)	21.96	19.25 ('07)	18.05
Lebanon	19.02 ('04)	16.52 ('07)	16.54 ('04)	14.15 ('07)
Libya	23.10	19.98	-	-
Morocco	25.29	19.22	23.44	17.42
Syria	31.12 ('02)	24.41	25.97 ('02)	21.53
Tunisia	19.38 ('05)	16.57	15.40 ('05)	
Palestine	27.83	24.78	24.16	19.87
Southern Mediterranean*	23.01	18.86	15.23	13.33

Source: Author's own calculations, The World Bank's World Development Indicators, Series: Labor force, total; Unemployment, total (% of total labor force), Labor force participation rate, total (% of total population ages 15-24), Unemployment, youth total (% of total labor force ages 15-24), Year: 2001 and 2010, and U.S. Census Bureau International Data, Series: Population by youth age group, Year: 2001 and 2010. Note: \*includes Algeria, Egypt, Israel, Morocco and Palestine. (a) The year of the data is specified in brackets when data of year 2001 and/or 2010 are not available. Labour market in the Southern Mediterranean economies had indeed been all but balance. Although youth

<sup>10</sup> See also Table 2.2.

accounted for approximately 20 percent of the total labour force, they also bore the most of the brunt of unemployment, representing 50 percent of the total unemployed persons. In a labour market in equilibrium, the percentage of youth in the labour market and in the total employment would have been similar or close. However, the gap between the proportion of youth in total unemployment and that of total labour force in the Southern Mediterranean countries only reveals the unbalances in the labour markets (see Table 3.2.).

In 2010, the gap between the percentage of youth in the labour market and the total employment in the Southern Mediterranean countries was 5.53 percent, which was in fact an improvement from 7.77 percent in 2001. Algeria and Syria experienced the greatest improvements with the gap reduced by 5.45 and 2.27 percent respectively, while in the rest of the MENA region, the gap reduced by less than 1 percentage. Despite the decreasing gaps, labour markets in Palestine, Lebanon and Egypt were still some of the most unbalanced in the MENA region.

One factor that contributed to the unbalanced youth labour markets in the Southern Mediterranean countries was the continued marginalisation faced by young people, even when the job markets were expanding. Out of 12 million newly created jobs<sup>11</sup>, only 8.24 percent were occupied by youth (this corresponds to 963,040 jobs). The statistical analysis illustrated in Table 3.3. shows that those Southern Mediterranean economies with the greatest improvements in employment rates have some of the lowest proportion of new jobs for youth. In Algeria, for instance, despite the greatest improvement in the general (un)employment situation, only 7.39 percent of the total new jobs went to young people. In Morocco, one of the best performing economies in the MENA region, youth labour force was totally excluded from the new job creation efforts, and some young people even lost their jobs for the benefit of older labour force; these factors potentially explain the meagre fall of youth unemployment in Morocco (see Table 3.3.).

**Table 3.3. Youth in the job market**

	Between 2001 and 2010		% of new jobs created occupied by youth
	Total n°. of new jobs created	N° of new jobs created occupied by youth	
Algeria	3,681,274	271,963	7.39
Egypt	5,527,938	888,280	16.07
Israel	686,206	26,371	3.84
Jordan*	124,010	6,864	5.54
Lebanon**	121,626	-9,910	-8.15
Morocco	1,567,295	-248,339	-15.85
Syria***	921,541	1,207	0.13
Palestine	224,432	24,765	11.03
Southern Mediterranean****	11,687,146	963,040	8.24

Source: Author's own calculations, The World Bank's the World Bank's World Development Indicators, Series: Labor force, total; Unemployment, total (% of total labor force), Labor force participation rate, total (% of total population ages 15-24), Unemployment, youth

<sup>11</sup> Ibid. These 12 million newly created jobs exclude Jordan, Lebanon, Libya, Syria and Tunisia. This figure is used instead of 13 million as shown in table 1.1., because the respective data on youth unemployment rate are not available, in order to establish a meaningful two-time period comparison between 2001 and 2010.

total (% of total labor force ages 15-24), Year: 2001 and 2010, and U.S. Census Bureau International Data, Series: Population by youth age group, Year: 2001 and 2010. Notes: \* between 2007-2010. \*\* between 2004-2007. \*\*\* between 2002-2010. \*\*\*\* includes Algeria, Egypt, Israel, Morocco and Palestine only. (a) Data for Libya and Tunisia is not available. (b) The percentage of total new jobs created occupied by youths derived from the percentage of the difference between the number of employed youths in 2001 and 2010 over the total new jobs created (proxied by the difference in the number of employed persons between the same two-time periods).

means that proportionally, more youth in the labour force benefited from newly created jobs than any other economies of the MENA region. This has likely happened at the expense of the existing pool of unemployed persons since its youth unemployment rate fell faster than the unemployment rate for those aged between 25 and 64. This suggests that a significant proportion of Egyptians suffering from socio-economic discontent are aged 25-64, rather than belonging to the youth segment per se (between 15 and 24 years old according to the World Bank's definition). In Syria, where civil war continues, less than 1 percent of the newly created jobs were occupied by youth illustrating the extent to which Syrian youth continue to be marginalised in the job market.

### **Is the impact of demographic pressure over-estimated?**

Demographics in the Southern Mediterranean region are indeed young, with the proportion of people aged between 0 and 14 representing approximately 30 percent of the population.<sup>12</sup> It is likely that demographic pressure will continue to stretch the job market's capacity to absorb the expanding labour force. However, this is only one possible explanatory factor; the share of the population aged between 0 and 14 is decreasing, which in turn, slows down youth population growth. In the decade between 2001 and 2010, youth population in Southern Mediterranean grew by 7.22 percent - vis-à-vis the total population of 18.81 percent -, while the population aged between 25 and 64 grew by 25.95 percent<sup>13</sup> (see Table 4.1.).

On the country level, all countries except Palestine have a youth population growing slower than the working population (aged between 25 and 64), although differences vary between 3 and 27 percentage. Youth population grew in most of the Southern Mediterranean economies except in Tunisia, where a negative growth in youth population became visible, corresponding with the contraction of youth labour force in Tunisia. If youth population was growing slowly, this means that the demographic pressure would also be correspondingly reduced. Yet, a positive population growth rate will always signify an expansion. Rather than focusing on the demographic rates, it is therefore relevant to explore the nuances and numeral differences and compare their effects on those populations who experienced social uprisings and those who did not.

Salehi-Isfahani (2012) used the ratio of population aged between 20 and 24 in relation to those aged between 60 and 64 to estimate the number of new entrants for every retiring working person, or in other words, the entry-to-exit ratio. This means: the higher the ratio, the higher is the pressure on the job market's capacity to absorb the expanding labour force. Using this method, the highest entry-to-exit ratio are found in Palestine (6.54), Syria (6.13), and Libya (5.85). Indeed, Syria and Libya have experienced social uprisings; however, this method does not explain the cases of Egypt and Tunisia, where the entry-to-exit ratio are among the lowest in the MENA region: 3.44 and 3.05 respectively. Furthermore, despite their higher ratios, Algeria (4.22) and Morocco (4.02) hardly experienced any social unrests of the magnitude seen in Egypt and Tunisia.

<sup>12</sup> Author's own calculations, U.S. Census Bureau International Data, Series: Population by youth age group, Year: from 2001 to 2010.

<sup>13</sup> See table 3.1.



**Table 4.1. Demographic trends and dynamics**

	Growth between 2001 and 2010		
	Total population	Youth population aged 15-24	Population aged 25-64
Algeria	15.68	2.76	27.26
Egypt	20.88	4.96	26.61
Israel	17.64	9.63	18.29
Jordan	33.67	27.81	30.55
Lebanon	8.16	1.33	16.28
Libya	18.97	4.20	31.82
Morocco	11.06	1.51	20.66
Syria	31.47	30.12	34.80
Tunisia	9.53	-3.75	20.47
Palestine	28.53	39.94	25.98
Southern Mediterranean	18.81	7.22	25.95

Source: Author's own calculations, U.S. Census Bureau International Data, Series: Population by five year age group, Year: 2001 and 2010.

As long as the (youth) population continues to grow, the Southern Mediterranean economies will continue to face demographic pressure on their labour and job markets. However, the impact of demographic pressure on (youth) unemployment in the Southern Mediterranean region has been over-estimated, since youth population and labour force growth have generally falling.

### Human development in the Southern Mediterranean countries

Education is often perceived as playing a vital role in human development, and to this effect, people in the Southern Mediterranean countries are somewhat fortunate in comparison to global standards, as they receive free public education up to tertiary level. This means that Southern Mediterranean economies spend more on education in terms of percentages of government expenditure and of the GDP than other regions in the developing world with similar income levels (e.g. Southeast Asia). The average investment in education in the Southern Mediterranean region (percentage of the government expenditure) is in some cases higher than in parts of the European Union (EU), revealing the importance attributed to education in this area, and their equity-focussed socio-economic policies (see Table 5.1.)

Morocco made the highest investment on education than any other Southern Mediterranean economy by spending 26.21 percent of government expenditure. In second and third place are Tunisia and Algeria, who spent 20.68 and 20.27 percent in education respectively. Lebanon's investments on education (percentage of government expenditure) was the lowest, but this by no means suggests that education is less important here. Rather, this reflects changes that emerged as a result of the civil war in the 1970s, which considerably weakened the power and capacity of the state to control the education system (Buckner, 2011: 21). The size of the investment in education,

however, does not always produce the desired results; moreover the results of this investment are often difficult to measure and quantify. The most common tool for quantifying the impact of the expanding investment in education is the increasing school enrolment rate; this happened in the Southern Mediterranean economies (Salehi-Isfahani, 2012: 850). Indeed, the average gross enrolment rate for tertiary education was 36.71 percent in the Southern Mediterranean countries, which was higher than any developing regions of similar income level, but it lagged behind with regard to secondary education. (see Table 5.2.) However, what we cannot easily quantify is the impact of the enlarged and facilitated access to education on economic productivity, especially when a significant portion of highly educated persons are unemployed.

**Table 5.1. Public investments in education (average between 2001 and 2010)**

	% of government expenditure	% of GDP
Algeria	20.27	4.34
Egypt	14.04	4.31
Israel	13.50	6.24
Lebanon	9.88	2.36
Morocco	26.21	5.57
Syria	16.66	5.15
Tunisia	20.68	6.39
Southern Mediterranean*	17.32	4.91
Middle East & North Africa*	17.03	5.12
Southeast Asia*	16.82	3.27
East Asia*	15.93	3.95
Latin America & the Caribbean*	15.58	4.57
EU 28*	11.74	5.21

Source: Author's own calculations, World Bank's World Development Indicators, Series: Public spending on education, total (% of government expenditure), Public spending on education, total (% of GDP), Year: from 2001 to 2010. Note: \* Regional average. (a) Data for Jordan, Libya and Palestine not available. (b) Middle East & North Africa refers to the 21 economies according World Bank's classification, which include all 10 Southern Mediterranean economies. (c) Southeast Asia refers to the 10 Association of Southeast Asia Nations economies. (d) East Asia refers to China (no data available), Hong Kong, Japan and Republic of Korea. refers to the 41 economies according World Bank's classification.

An alternative indication of non-monetary returns on investments in education is the quality of the education system. High education investment rates in the Southern Mediterranean countries did not automatically result in better educational systems. Here, the Southern Mediterranean countries lag behind Southeast Asian education systems, although their performance does remain slightly better than education systems in Latin America. In terms of performing quality, Tunisia has the best educational system in the Southern Mediterranean region, followed by Jordan and Israel, while those in Libya, Egypt and Algeria lag behind.



Today, the productivity and efficiency of an economic system is measured by the ubiquitous use of advanced technology, closely linked to mathematics and science, and technological development. In these terms, Southern Mediterranean economies lag behind, especially in comparison to Asian counter-parts (in terms of the quality of mathematics and science education), but perform better than their Latin American counter-parts. Within the Southern Mediterranean region, Tunisia and Jordan provide the highest quality of mathematics and science education (better than some Asian and European countries), while Egypt and Algeria have a lower quality of education in these fields. Trends in the International Mathematics and Science Study (TIMSS) 2011 further revealed deficits in the quality of mathematic and science education in the Southern Mediterranean countries.<sup>14</sup> On average, eighth grade students in the Southern Mediterranean countries scored approximately 10 percent lower than the global average in mathematics, and 9 percent lower in science (with the exception of Israel). Southern Mediterranean economies also had some of the lowest quality scores for management schools, performing worse than most of the developing regions of similar income level. Yet, this is where some of the Southern Mediterranean economies have achieved higher quality compared to other developing regions, and to some European countries. Tunisia stays ahead of the rest of the Southern Mediterranean economies in terms of the quality of management schools, followed by Morocco, Jordan and Israel.

**Table 5.2. Performance on investments in education, 2009-2010**

	Secondary education enrollment, gross %	Tertiary education enrollment, gross %	Quality of the educational system*	Quality of math and science education*	Quality of management schools*
Algeria	83.22	24.02	2.63	3.25	3.28
Egypt	87.77	34.75	2.58	2.70	3.33
Israel	91.51	60.41	3.08	3.19	4.10
Jordan	89.35	39.91	4.45	4.74	4.31
Libya	93.53	55.75	2.43	3.68	2.23
Morocco	55.85	11.31	2.86	3.69	4.32
Tunisia	88.04	30.81	4.89	5.53	5.00
Southern Mediterranean <sup>^</sup>	84.18	36.71	3.28	3.83	3.80
Middle East & North Africa <sup>^</sup>	90.09	30.91	3.80	4.17	4.11
Southeast Asia <sup>^</sup>	76.96	26.81	4.15	4.41	4.28
East Asia <sup>^</sup>	92.39	58.53	4.38	5.18	4.41
Latin America & the Caribbean <sup>^</sup>	84.14	34.64	3.17	3.20	4.16
EU 28 <sup>^</sup>	102.38	60.61	4.36	4.80	4.73

Source: Author's own calculations, World Economic Forum's Global Competitive Index, Series: Secondary education enrollment, gross %, Tertiary education enrollment, gross %, Quality of the educational system, Quality of math and science education, Quality of management schools, Year: 2009-2010. Note: \* Score 1-7 (best). ^ Regional average. (a) Data for Lebanon, Syria and Palestine not available. (b) Middle East & North Africa refers to the 21 economies according The World Bank's classification, which include all 10 Southern Mediterranean

<sup>14</sup> See Table A.1. in the Appendix.

economies. (c) Southeast Asia refers to the 10 Association of Southeast Asia Nations (ASEAN) economies. (d) East Asia refers to China (no data available), Hong Kong, Japan and Republic of Korea. (e) Latin America & the Caribbean refers to the 41 economies according to The World Bank's classification.

These results explain why skills mismatch remains one of the main concerns in the labour and job markets. In increasingly inter-dependent economic systems, most Southern Mediterranean economies have displayed little compatibility between the supply structure of their economies and the world demand, which makes them vulnerable to external competition and more likely to lose from economic globalisation than to benefit from it. The quality of the educational systems also causes lower productivity, making the region less competitive. The lower quality of educational systems can threaten the skills adequacy of the labour force. In the Executive Opinion Survey conducted by the World Economic Forum, in the compilation of the Global Competitiveness Index 2009-2010, an average of 9 percent of the respondents expressed that an inadequate educated workforce was one of the five most problematic areas when doing business in the Southern Mediterranean region (and more problematic than in economies in Southeast Asia and Latin America). This problem is evident in Syria, where 13.40 percent of the respondents indicated that skill inadequacy as one of the five most problematic areas, followed by Jordan (12 percent), and Egypt (10 percent). The rest of the Southern Mediterranean economies have lower positions than the average of other developing regions, with the exception of Israel and Libya, where skill inadequacy is less problematic.

**Table 5.3. Percentage of tertiary graduates by programmes (average 1990-2012)**

	Science	Engineering, manufacturing, construction	Humanities, arts	Social sciences, business, law	Health, welfare	Education	Agriculture	Services
Algeria	12.15	13.00	21.00	43.25	4.25	1.50	2.00	1.75
Israel	5.590	31.50	9.50	31.50	4.50	15.00	-	-
Jordan	14.50	9.00	14.50	28.25	9.25	16.25	2.50	-
Lebanon	10.25	12.25	14.33	45.08	11.42	4.25	0.33	1.83
Morocco	16.33	9.50	16.75	38.25	5.75	8.00	1.00	2.25
Tunisia	26.00	16.00	19.00	24.00	9.00	1.00	2.00	4.00
Palestine	11.09	7.18	13.55	32.36	8.55	25.73	0.36	0.55
Southern Mediterranean <sup>^</sup>	13.07	14.06	15.52	34.67	7.53	10.25	1.37	2.08
Middle East, North Africa <sup>^</sup>	12.08	14.19	15.91	33.23	7.61	11.73	1.65	2.36
Southeast Asia <sup>^</sup>	11.97	12.56	12.53	30.26	6.09	20.55	4.26	2.30
East Asia <sup>^</sup>	8.68	22.54	14.51	26.27	8.86	8.86	1.18	5.12
Latin America, the Caribbean <sup>^</sup>	6.96	11.31	3.67	37.25	12.75	21.30	2.65	3.48
EU 28 <sup>^</sup>	8.94	12.92	10.27	35.75	13.15	13.30	2.00	5.14

Source: Author's own calculations, UNESCO Institute for Statistics, Data Centre, Series: Distribution of tertiary graduates by programmes, Year: from 1990 to 2012. Notes: <sup>^</sup> Regional average. (a) Data for Egypt, Libya and Syria not available. (b) The sum of the percentages may not add up to 100 percent. (c) Middle East & North Africa refers to the 21 economies according The World Bank's classification, which include all 10 Southern Mediterranean economies. (d) Southeast Asia refers to the 10 Association of Southeast Asia Nations (ASEAN) economies. (e) East Asia refers to China (no data available), Hong Kong, Japan and Republic of Korea. (f) Latin America & the Caribbean refers to the 41 economies according The World Bank's classificatio

Even in those countries with a high quality of mathematics and science education, students are more likely to opt for humanities, arts and social sciences (HAS) in tertiary education in comparison to students in developed economies, with an even smaller number of students pursuing science, engineering, and technical studies (SET). The choice of subjects studied at tertiary education affects the ubiquitous use and development rates of advanced technologies. Although the region's average proportion of tertiary graduates in SET was comparable to that of developed East Asian and European economies, or even higher in some cases, the proportion of HAS graduates was not only higher than any other world region, but also approximately 23 percent higher than the proportion of SET graduates. The percentage difference between tertiary graduates of HAS and SET in the Southern Mediterranean countries is comparable to the one of the EU's and Latin American averages, but it was significantly dissimilar to (South) East Asian averages, where the quality in mathematics and science education is among the highest worldwide. The proportion of SET and HAS graduates was most balanced in Tunisia, where the proportion of graduates from each of the cohorts accounted for slightly more than 40 percent of the total number of graduates; here, the proportion of SET graduates is among the highest in the Southern Mediterranean region. Although the proportion of SET graduates is comparable to the MENA region's average, Algeria has far more HAS graduates (64 percent), and thus the most unbalanced graduate distribution in the MENA region, followed by Lebanon, Morocco and Palestine.

Despite generous expenditure on education, most Southern Mediterranean economies show shortcomings in socio-economic policies, as well as an inability or lack of political will of to generate socio-economic policies that promote structural reforms and respond to global demand and competition.

## Conclusion

Unemployment and youth became heavily discussed topics in the discourses surrounding the 2010-2011 social uprisings across the Southern Mediterranean region, particularly since youth unemployment shot to above 20 percent in the region after the uprisings. The common phenomena we observe across the Southern Mediterranean economies are their overall improvements in terms of overall unemployment, while (youth) unemployment numbers remain problematic.

Youth represent 20 percent of the labour force in Southern Mediterranean, but 50 percent of the total unemployment, which signals the extent of the marginalisation facing young people in the labour market. The magnitude of this marginalisation varies between the economies in the MENA region, distinguishing those Southern Mediterranean economies that were affected by social unrests and those who were not. There are several ways to measure this magnitude, and to interpret its link to the social unrests in the affected economies. In Tunisia, 46 percent of unemployed persons were youth. In Egypt, and Jordan to a lesser extent, despite a falling share of youth in the total unemployment rates, the number of unemployed young people actually increased. In Syria, only less than 1 percent of the total newly created jobs over the past decade are occupied by youth. One root cause of youth marginalisation is the demographic pressure in the Southern Mediterranean countries thanks to their youthful population. But with plummeting (youth) population growth rates, and a contraction of the youth labour force, one can also maintain that the effects could have been smaller than expected, if not marginal. This is by no means to discount the role of demographic dynamics in shaping the labour force. However, demographic factors can only explain a certain part of the

unemployment problem. These subjects and factors interact and respond to policies with effects that are hard to measure or to quantify.

Youth unemployment in Southern Mediterranean countries was actually more influenced by the effects of post-colonial policies that mirrored state- and capacity-building efforts and legitimacy consolidation, having long-term impacts on people's attitudes. During the post-colonial period, many Southern Mediterranean states implemented free education up to higher education levels, with university graduates having guaranteed jobs in the public sector (Anderson, 1987 and Teixeira, 2009 cited in Buckner, 2011, p. 21). This aspect of the post-colonial period has remained until today, as education in most of the Southern Mediterranean states is still free up to the tertiary level; more and more people in the Southern Mediterranean region are literate and educated (Mahdi et al., 2013: 2), and many see education as an opportunity for social mobility (Cohen, 2004 cited in Buckner, 2011: 21). In today's context, where young people are becoming increasingly educated, those aged between 15 and 24 are more likely to stay in education longer. This development partly explains the decreasing youth labour force participation rate in the MENA region. If these findings were verified, such developments could challenge the youth definitions used by international organisations in the context of labour markets.

By the 1970s, the Southern Mediterranean governments found themselves racking up public budget deficits which eventually forced them to shift toward neoliberal reforms. Neoliberal reforms in the 1970s and 1980s led to high economic growth, but the effects on unemployment rates were marginal. The reforms benefited the resource rich economies, as oil exports expanded globally during the oil booms. The capital intensive oil industry is linked to low employment elasticity, and the economic growth had limited influence on employment expansion.

Southern Mediterranean economies lack a synergy between structural reforms and the transformation in the private sector. Governments were offering less public positions, but the private sector did not expand fast enough to absorb the affected persons. This reveals the state's lack of capacity to follow up with institutional reforms that truly promote liberalisation. Bureaucracy-oriented education systems became out-dated, and produced graduates with skills that did not match the requirements in the private sector. The governments' attempts to mitigate the impact of the market liberalisation on the affected persons with more equitable social benefits produced a zero-sum effect on the budget, but shaped people's attitudes, perceptions, and behaviour. In response to employment erosion, some people in the labour force choose to remain in school and to obtain a higher education qualification in order to increase their employability. Others choose to stay out of the labour market, because they can afford to do so (middle-income households). As the job search period protracts, the enthusiasm of young and first-time job seekers will dampen further by the day. The so-called "hittistes" - young people literally leaning against the wall on the streets, watching the days go by without doing anything, because they are jobless and hopeless - represent this phenomenon in the Southern Mediterranean countries.<sup>15</sup> A negative growth in youth labour force due to lower youth participation in the labour market is not a real contraction; it is a procrastination of a social problem that is just waiting to erupt.

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<sup>15</sup> "Hittistes" is a Franco-Arab slang.

This attitude is also linked to the socio-economic equity focused policies of many Southern Mediterranean states through rent transfers and distributions in the form of social benefits to contain the spread of discontent caused by the dismal job market. Many Southern Mediterranean states do not have comprehensive social security programmes, but their public social security expenditure (in percentages of the GDP) is higher than most middle-income economies, implying that social benefits in the region are likely to be more generous.<sup>16</sup> Generous social benefits become a source of moral hazard among unemployed persons when they start to depend on pay-outs to survive, and at the same time they deter from productive economic participation, cultivating a culture of “waiting” until they land on a government job. This development is also a by-product of the Southern Mediterranean states' earlier policies during the post-colonial period when the public sector expanded and not only provided higher wages, but also more social security compared to the private sector. Despite contraction in the public labour sector over the past three decades of neoliberal reforms, these expectations have not disappeared. Instead, job seekers are willing to wait until they get a job in the public sector. A survey conducted by Silatech, in collaboration with Gallup Inc., shows that more than 50 percent of the youth interviewed (aged between 15 and 29) still expressed preference to work for the government, despite their grim opinion of the job market (except in Libya).<sup>17</sup>

In the Southern Mediterranean, the youth expectation that better job prospects can be reached through education are fruitless. Highly educated youth are finding themselves under attack from all fronts for being young and highly educated. Those who fall through the crack resort to informal jobs, where working conditions are often sub-standard, and the workers' social welfare is unprotected, or they decide to emigrate. Either way, for the state, this means a loss of taxes that could otherwise be added to public expenditure. On the other hand, the governments' inability to reform and transform their economies is not a question of political will alone. External competition has weakened the Southern Mediterranean domestic economic capacities to the extent that they are not benefiting much from globalisation, neither individually nor as an economy. Last but not least, Southern Mediterranean economies lack the regional integration and cooperation required to develop a supply-chain network, to support their market liberalisation programmes, and to proceed to real economic transformation.

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<sup>16</sup> See table A.2 in the Appendix.

<sup>17</sup> See footnote 2.

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## Appendix

**Table A.1. Trends in International Mathematics and Science Study 2011 Scores (Eighth Grade)**

	Mathematics	Science
Algeria <sup>^</sup>	387	408
Egypt <sup>^</sup>	405	417
Israel <sup>*</sup>	516	516
Jordan <sup>*</sup>	406	449
Lebanon <sup>*</sup>	449	406
Morocco <sup>*</sup>	371	376
Syria <sup>*</sup>	380	426
Tunisia <sup>*</sup>	425	439
Palestine <sup>*</sup>	404	
Southern Mediterranean <sup>**^^</sup>	422	435
Southeast Asia <sup>**</sup>	466	468
East Asia <sup>**</sup>	595	554
EU 28 <sup>**</sup>	497	517

Global**	467	478
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Source: Author's own elaboration and calculations, Trends in International Mathematics and Science Study 2011 Scores, last accessed 28 January 2014 at <http://timssandpirls.bc.edu/data-release-2011/pdf/Overview-TIMSS-and-PIRLS-2011-Achievement.pdf>, Salehi-Isfahani et al. (2011) as illustrated in Salehi-Isfahani (2012), pp. 855. Notes: \* Scores from Trends in International Mathematics and Science Study 2011 Scores. ^ 2007 scores from Salehi-Isfahani et al. (2011) as illustrated in Salehi-Isfahani (2012), pp. 855. \*\* Average. ^^ Includes Israel, Jordan, Lebanon, Syria, Tunisia and Palestine. (a) Data for Libya not available. (b) Southeast Asia refers to the 10 Association of Southeast Asia Nations (ASEAN) economies. Southeast Asia average scores excluding Singapore were 418 for mathematics and science 428. (d) East Asia refers to China (no data available), Hong Kong, Japan and Republic of Korea.

**Table A.2. Public social security expenditure (percentage of the GDP)**

	2010	Latest data available
Egypt	8.96	14.07
Israel	17.21	16.54
Jordan	12.53	12.56
Lebanon		5.28
Morocco	4.43	
Syria	3.22	
Tunisia	8.73	9.82
Southern Mediterranean*	9.18	11.65
Middle East & North Africa*	8.35	11.04
ASEAN*	2.35	3.16
East Asia*	8.34	10.18
Latin America & the Caribbean*	7.91	7.58

Source: International Labor Organization's World Social Security Report, 2010-2011, Table 25. Note: \* Regional average. (a) Data for Algeria, Libya and Palestine not available. (b) Middle East & North Africa refers to the 21 economies according The World Bank's classification, which include all 10 Southern Mediterranean economies. (c) Southeast Asia refers to the 10 Association of Southeast Asia Nations (ASEAN) economies. (d) East Asia refers to China, Hong Kong, Japan and Republic of Korea. (e) Latin America & the Caribbean refers to the 41 economies according The World Bank's classification.